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REMARKS

I. Status of Claims

Claims 2-11, 13-22, 24 and 32 are pending in this application. In a prior Office Action, claims 23-32 had been allowed and claims 6-11, 14-16 and 19-22 objected to but otherwise allowable. In response Applicant amended the claims to place them in condition for allowance, after which claims 6-11, 13-22, 24 and 32 were deemed allowed and certain of the remaining claims were withdrawn as non-elected. Claims 2-5, which had been amended to depend from allowed claim 6, were reinstated.

However, in the present Office Action, the indication of allowance was withdrawn. Claims 2-11, 13-22, 24 and 32 now stand rejected as anticipated by the patent of Bird, No. 6,321,235.

II. Discussion of Amendments to the Claims

As a preliminary matter, objections were raised as to certain language in claims 5, 7, 9, 18 and 21-22 that was regarded as passive or non-limiting. Applicant has amended these claims to eliminate the objectionable terms identified in the Office Action. It is believed that the terms in these claims are neither indirect nor passive, nor do they suggest optionality, but instead impart positive limitations.

Claims 17-18 and 32 were rejected under 35 U.S.C. 112. Claims 17 and 32 have been amended to eliminate the "causing" and "causes" terms and to recite a particular functionality. Claim 32 has also been amended to eliminate an antecedent basis problem with the "one or more data fields" limitation.

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III. Arguments with respect to the Substantive Rejections

Turning now to the substantive action, all of the claims were rejected under 35 U.S.C. 102(e) in view of the Bird Patent. Looking first at independent claims 6, 14 and 24, these claims all share a common feature that is neither disclosed nor contemplated in the Bird Patent. In particular, each of these claims a "static memory device" and a "dynamic memory device", with static data being stored in the static memory device and dynamic data being stored in the dynamic memory device. The Bird Patent neither discloses nor contemplates separate static and dynamic memory devices.

The Bird Patent discloses a global cache for SQL sections in which the global cache 40 consists of two logical areas – a static SQL cache 42 and a dynamic SQL cache 44. See, FIG. 3, col. 5, lines 12-14. The static-dynamic distinction in the Bird Patent concerns the two basic types of SQL statements. A static SQL statement is an SQL request for data embedded within an application program (col. 1, lines 52-54), while a dynamic SQL is an ad hoc SQL request (col. 2, lines 1-12). When static SQL information is loaded into the global cache following a request by a first agent, that information remains available in the global cache for access by all other agents. Col. 4, lines 56-67. Similarly, when dynamic SQL statements are loaded into the global cache by a first user, the information remains available to any other agent. Col. 5, lines 7-10. The logical separation of the global cache into the static SQL cache and the dynamic SQL cache is a reflection of the different information required for each type of SQL statement. Compare FIG. 4 (static cache information) with FIGS. 5-6 (dynamic cache information); see also, col. 6, lines 22-32.

The BIRD Patent does not disclose different memory devices for storage of static

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and dynamic data, and more specifically does not disclose a static memory device and a dynamic memory device, as required by Applicant's independent claims 6, 14 and 24. The static and dynamic distinctions in the Bird Patent are a reflection of the nature of the SQL information rather than the manner in which the associated information is stored. To the contrary, the Bird Patent contemplates that the global cache will be eventually filled with SQL information, requiring a space-management protocol whenever a new entry must be added. Col. 10, lines 29-44. This protocol contemplates deleting both static and dynamic SQL information based on a Least Recently Used algorithm. Col. 10, lines 39-45.

The Bird Patent discusses determining an appropriate size for the global cache to maximize performance and optimal use of resources. Col. 10, line 62- col. 11, line 4. However, there is no discussion of providing a static memory device for static data and a dynamic memory device for dynamic data. The system in Bird stores all data in the global cache, which is allocated from the same memory set as other database-level entities, such as the lock list or buffer pool, and which remains active until the database is shut down. Col. 4, lines 48-53.

Thus, it can be concluded that the Bird Patent cannot anticipate Applicant's claims 6, 14 and 24 because it fails to disclose every limitation of those claims. Moreover, there would be no motivation to alter the global cache memory structure of the Bird system

While the claimed static and dynamic memory devices are enough to distinguish Applicant's claims from the system disclosed in the Bird Patent, that patent also lacks an additional element, namely the catalog that specifies the data fields that contain static data elements and dynamic data elements. In the Office Action, this element was

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purported to have been described at col. 7, lines 64-67 and col. 8, lines 49-62 of the Bird Patent. Applicant is unable to discern the relevance of these excerpts from the Bird Patent to these elements of Applicant's claims. As understood, the Bird Patent does disclose the use of catalogues or catalogue tables (22 in FIG. 1) that contain meta-data for a particular relational database. See, col. 3, lines 32-45, 64-66. It appears that dynamic SQL statements are not allocated any rows in a catalogue table in the disclosed system. At any rate, it does not appear that the Bird Patent discloses a database manager that comprises a catalog that specifies that some of the data fields contain static data elements and some contain dynamic data elements.

Since the Bird Patent fails to disclose or contemplate every element in Applicant's claims 6, 14 and 24, these claims are patentable over the art of record. Moreover, claims 2-5, 7-11, 13 and 15-22 which depend from either claim 6 or claim 14, benefit from the allowability of their parent claims and are themselves in condition for allowance. Moreover, the dependent claims are patentable on their own merits. For instance, claim 3 recites copying units from the static memory device into the dynamic memory when the data elements in the units are to be modified. As explained in the Bird Patent, the static SQL sections are created at compile time and are "frozen in time" (col. 8, lines 27-29), and are apparently only "flushed from the cache" (col. 4, lines 65-67) rather than modified at any time.

Claim 11 further defines the second section of the database as defining a third section for persistent dynamic data and a fourth section for persistent dynamic data, both being stored in a non-volatile memory device. The rejection of this claim was purported to be supported by element 48 in FIG. 4 of the Bird Patent. However, the representation

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in this figure is of the static SQL cache, not the dynamic cache. Moreover, there is no disclosure in the Bird Patent of persistent and non-persistent dynamic data.

Finally, claim 32 was also rejected as anticipated by the Bird Patent. As best understood, the starting point for the rejection appears to be the disclosure in the Bird Patent of the processing of a dynamic SQL statement. However, reference is made to the disclosure at col. 3, lines 57-67 and col. 4, lines 45-67 which primarily discuss treatment of static SQL information. The basis for the rejection is further confused by the reference to col. 10, lines 32-48 which describes the space-management logic applied when the global cache fills up in which unused packages or statements are deleted. Other than describing the deletion of data, there is no disclosure or suggestion in this excerpt that follows the language in Applicant's claim 32. Similarly, the reference to the excerpt at col. 4, lines 15-39, is confusing, especially since this excerpt refers to the absence of a section for a statement sought by an agent. It is unclear how this excerpt can be read on the language "to eliminate said second set of data fields" in Applicant's claim.

In summary, the basis for rejecting claim 32 is simply a collection of unconnected excerpts from the Bird Patent. Even if any of these excerpts do disclose certain elements of claim 32, there is nothing in the Bird Patent that connects all of these excerpts in the manner defined in the claim. It is improper to pick and choose parts of a reference out of context and combine them in an amalgamation to support an anticipation rejection.

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Applicant has amended the claims to overcome the non-substantive rejections and objections raised in the Office Action. Moreover, is believed that the foregoing arguments have traversed the anticipation rejection of the pending claims in view of the Bird Patent. Thus, all of the pending claims, including claims 2-11, 13-22, 24 and 32, are believed to be in condition for allowance. Action toward a Notice of Allowance is hereby requested.

Respectfully Submitted



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